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ABSTRACT

Extant research on the relationship between job satisfaction and employee absenteeism in the private sector clearly shows that job satisfaction is not a major factor in absenteeism. To determine whether a similar pattern prevails in educational organizations, a study was conducted of 509 elementary teachers working in 36 schools from over 20 California school districts. Although the results of the study are consistent with the previous research, there is evidence to suggest that job satisfaction and absenteeism are more apt to be related, however tenuously, when teachers spend much of their work time with other teachers than when they interact with other teachers during only a moderate amount of their work time, or less. (Author/PGD)

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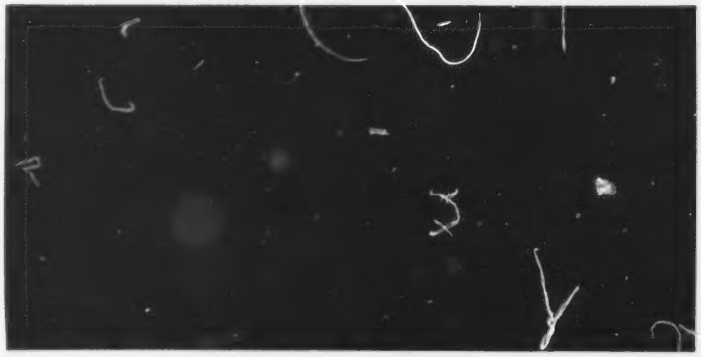

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JOB SATISFACTION AND TEACHER ABSENTEEISM

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Abstract

Extant research on the relationship between job satisfaction and employee absenteeism in the private sector clearly shows that job satisfaction is not a major factor in absenteeism. To determine whether a similar pattern prevails in educational organizations, a study was conducted among elementary teachers. Although the results of this study are consistent with the previous research, there is evidence to suggest that the relationship between job satisfaction and absenteeism, tenuous as it appears to be, is conditioned by the design of the teacher's job. Specifically, job satisfaction and absenteeism are more apt to be related under a condition of high work interdependence than under moderate or low interdependence.

JOB SATISFACTION
AND
TEACHER ABSENTEEISM

Employee absenteeism is a relatively serious problem for organizations in the public and private sectors. According to the federal Bureau of Labor Statistics, work-hours lost through absenteeism came to 3.5% in 1976. This absenteeism costs private industry roughly ten billion dollars a year in sick pay and five billion dollars in fringe benefits that continue whether or not the employee is at work.[1] Comparable figures for elementary and secondary education, one segment of the public sector, are similarly noteworthy. Work-days lost through absenteeism by elementary and secondary teachers amounts to approximately 3.75%.[2] This lost time costs more than one-half billion dollars for substitutes[3] and $120 million in fringe benefits which teachers receive whether they are in the classroom or not.[4] In light of the prevalence and cost of employee absenteeism, employers and researchers alike have exhibited an increasing interest in understanding this phenomenon.[5]

One variable which has figured prominently in studies of absenteeism in the private sector is job satisfaction, i.e., sentiments toward various facets of the work situation. Irrespective of the type of investigation, the relationship between job satisfaction and absenteeism is consistently negative.[6] However, despite the consistency of the findings, job dissatisfaction does not appear to be a major cause of absence among those types of employees studied, namely, blue collar and clerical workers. Whether a similar pattern exists in the public sector and among other occupational groups, including teachers, is unclear. The investigation reported in the balance of this paper is designed to shed light on this subject and to

examine some of the implicit assumptions inherent in the previous research.

Conceptual Context

Underlying the extant research on job satisfaction and absenteeism is a rather simplistic view of absence. Temporary withdrawal from the workplace is conceived of as a pain-reductive response on the part of workers to their work situation. According to this rather common conception of absence, the more dissatisfied the employee is with the various aspects of his work, the more hurt and pain he experiences when working, the more likely he is to seek relief by withdrawing from the object of pain, i.e., being absent from work. Moreover, absenteeism is an especially attractive palliative act in organizations with sick leave policies that enable employees to miss work without loss of salary.[7]

The popularity of the pain-reductive hypothesis among managers and social scientists may be due to one or more reasons. First, the view has intuitive appeal. There is a common sense quality to the notion that workers who are "in labor" are less likely to attend work regularly than those who strive with joy. Second, the hypothesis represents a way of underscoring the centrality of job satisfaction, a favored, but fallen, star in the study of productivity. Third, acceptance of the notion supplies an economic justification for employers to improve the quality of their employees' work life.

Despite the popularity of the pain-reductive hypothesis, it has not been particularly powerful in accounting for the absence behavior of workers. Correlations between job satisfaction and absenteeism are of modest magnitude. Rarely do the correlations exceed -.30; the shared variance between the two variables is consistently less than 10%. Since the unexplained variance is nine times greater than the explained, there is ample evidence

for questioning the robustness of the hypothesis.

The disappointing performance of the pain-reductive response may be due in part to two faulty assumptions. One assumption centers on the notion that each source of satisfaction (e.g., supervision, pay, co-workers, and the work itself) is of equal valence to all workers. This assumption runs contrary to the "met expectations" view of Porter and Steers.[8] According to their conception, employees may vary in the importance which they attach to the sources of satisfaction available from their jobs. Since absence is looked upon as a process of balancing received "rewards" with desired expectations, a less valued source of satisfaction is expected to exert less of an impact on absence behavior than a more highly valued source of satisfaction. For example, increasing the salary of an employee who is genuinely disinterested in money may have little effect on his absenteeism whereas meeting his desire for more challenging work may have a great impact.

Support for Porter and Steer's contention that workers may attach varying importance to different sources of satisfaction is to be found in Lortie's study of teachers.[9] Lortie argues that psychic rewards such as the enjoyment of one's work are far more important to classroom teachers than are extrinsic rewards like wages and benefits. The emphasis on psychic, as opposed to extrinsic, sources of satisfaction stems from the structure of rewards in teaching. The extrinsic rewards of teachers are based almost exclusively on seniority and course-taking; therefore, effort does not make much difference on these rewards. On the other hand, psychic or task-related satisfactions are influenced in part by the efforts of individual teachers. Under these conditions, one would expect teachers to concentrate on psychic rewards where their efforts are more likely to have a pay-off. In partial

support of his argument, Lortie cites data from a survey of 5,837 teachers who report that psychic rewards are their major source of satisfaction. In fact, for every teacher who underscored the importance of extrinsic rewards, there are seven who highlight the significance of psychic outcomes. This differential valuing of rewards by teachers, according to the "met expectations" notion of Porter and Steer's, should be reflected in the satisfaction/absenteeism relationship. Specifically, work satisfaction (a psychic reward) is expected to be related to absenteeism while satisfaction with pay (an extrinsic reward) is not.

In addition to the questionable assumption regarding the equal valence of different sources of job satisfaction, previous investigators have assumed that the characteristics of the worker's job do not condition the relationship between job satisfaction and absenteeism. Yet, a priori, there are grounds for expecting the design of the job to affect the tendency of employees to act on their dissatisfaction with the various facets of their work situation. As Hackman and Lawler point out, the way jobs are designed is an important factor in determining the motivation and performance of workers.[10] How job design may condition the relationship between job satisfaction and absenteeism is the subject of the discussion that immediately follows.

A major way in which the design of jobs may differ is in terms of work interdependence, i.e., the extent to which the performance of a person's role is dependent on the performance of others.[11] This element of job design is of special interest to educators since schools historically have been organized around teacher separation rather than teacher interdependence. The "cellular" pattern of instruction or low task interdependence among teachers prevailed until the late 1950's when team teaching, a more inter-

dependent form of job design, emerged.[12] This change in job design provides a vehicle for examining the manner in which one type of job characteristic may influence the satisfaction/absenteeism relationship.

Two opposing outcomes may flow from the shift from a state of low task interdependence to a state of relatively higher interdependence. One possibility is that a state of high interdependence creates pressures on the employee to attend. These pressures stem from the sense of vulnerability and the norm of reciprocity that accompany highly interdependent work situations. As the performance of one role incumbent becomes dependent on the performance of others, the parties to this set of dependency relationships find themselves in a position to help and be helped, to injure and be injured. This vulnerability is apt to increase as the task interdependence increases. In order to minimize the real or imagined effects of vulnerability, workers develop a norm of reciprocity around those role-relevant behaviors most disruptive of or functional to the relationship. Since absence increases the work load and the aggravation of co-workers, employees seek to stabilize their role relationships in a highly interdependent work situation by adhering to a norm of reciprocity which "requires that if others have been fulfilling their status duties to you, you in turn have an additional or second-order obligation (repayment) to fulfill your status duties to them."[13] Consistent with the foregoing argument, one expects to find little or no relationship between job satisfaction and absenteeism in a highly interdependent work situation since the felt pressure to attend may offset the desire to be absent due to job dissatisfaction. In less interdependent work arrangements, the relationship between job satisfaction and absenteeism may be quite pronounced since the felt pressures to attend are not present.

A second possibility, contrary to the first, is that a highly interdependent work situation diminishes work motivation, an internal pressure on the employee to attend, by denying him a sense of personal responsibility for a meaningful portion of his work. This deprivation occurs in the more highly interdependent work settings because the employee is unable to determine whether his successes or failures at work are due to his own efforts or to the actions of co-workers. In a condition of low task interdependence, however, the individual is less confused about the source of his successes or failures and, therefore, is more likely to feel more personally responsible for the outcomes of his work. If relative autonomy in the work setting heightens a sense of responsibility for one's work, leads to greater work motivation, and thereby generates an internal pressure to attend, the relationship between job satisfaction and absenteeism is expected to be negligible. As autonomy shrinks, as it does in the more highly interdependent work settings, the relationship between job satisfaction and absenteeism should be considerably greater.

Method

Subjects

Forty elementary schools in 27 California school districts were initially approached. From this group, 36 schools were selected for inclusion in the study based on the following criteria: (a) acceptability of the research to administrators and teachers; (b) suitability of records for the extraction of data on absenteeism and the relevant organizational characteristics; (c) absence of major environmental disruptions and labor-management disputes; (d) size of school; and (e) level of work interdependence. The final sample consisted of 509 elementary teachers working in the 36 schools which participated in the study.

Procedure

A questionnaire was used to gather biographical, work situation, and job satisfaction data from members of the teaching staff in each school. These questionnaires were distributed by a member of the teaching staff at a school-wide faculty meeting. Following a discussion of the study, teachers were encouraged to complete the questionnaire and to return it to their building representative the next day. The average response rate to the teacher questionnaires in each school was 84.9%; the range in participation for the 36 schools was 50 to 60%.

Absence data and salary information were gathered directly from central office personnel records while data about the characteristics of the immediate work context, and the total organization were taken from policy manuals and staff handbooks.

Measurement Methods: Absence

The level of absenteeism for each individual was computed in three steps: (1) identify the total number of one-day or two-day absence episodes in the school year; (2) divide the total number of one- and two-day absence episodes by the length of the school year; and (3) multiply the quotient by 180, the number of work days in a typical school year. A large part of the absence episodes in this measure are voluntary, nonsickness absences.[14]

Measurement Methods: Job Satisfaction

Four dimensions of job satisfaction were measured: satisfaction with the work itself, satisfaction with pay, satisfaction with co-workers, and satisfaction with supervision. Each area of job satisfaction was measured by means of the Job Descriptive Index developed by Smith, Kendall, and Hulin.[15] This index is the most reliable and valid measure of job

satisfaction in current use.[16]

Measurement Methods: Work Interdependence

Work interdependence was measured by asking respondents to indicate (1) the total number of hours they spend each week in school and (2) the number of hours they work in isolation of other teachers; the level of interdependence was calculated by dividing (1) into (2). The larger the score on this measure, the lower is the level of work interdependence. This measure of work interdependence is highly correlated with the Staffing Pattern Investigation, a questionnaire designed to measure the extensity and intensity of task interaction among teachers.[17]

On the basis of their work interdependence scores, teachers were placed into one of three groups: high work interdependence (0-24); moderate work interdependence (25-74); and low interdependence (75-100).

Measurement Methods: Control Variables

When examining the relationships between job satisfaction and absenteeism under three different conditions of interdependence, the investigator sought to control for the effects of variables expected to influence absenteeism, namely:

1. Size of sub-unit: measured by examining the staff rosters for each school and counting the number of teachers employed full-time at the work site.

2. Salary: measured by taking each subject's annual salary from his personnel record.

3. Sex: measured by response given by teacher to the gender item on the employee questionnaire (1 = female, 2 = male).

4. Age: measured on questionnaire by asking respondent to indicate his age to nearest birthday.

5. Travel time to work: measured by asking respondents to estimate in minutes how long it usually takes them to get to work.

6. Notification of impending absence (an absence control policy): measured by examining leave policies to determine if teachers are required to report their anticipated absence directly to their immediate supervisor or to a functionary who routinely processes absences and arranges for a substitute (1 = phone supervisor; 0 = phone functionary).

The means, standard deviations, and inter-correlations of the control variables, the job satisfaction measures, and the absence index are reported for each level of work interdependence (see Tables 1, 2, and 3).

Analysis

Twelve different multiple regression analyses were used to estimate the relationship between job satisfaction and absenteeism. For each of the three levels of work interdependence, four equations were constructed; each equation consisted of the dependent variable (absenteeism), the six control variables (sex, age, salary, travel time to work, size of subunit, and notification of impending absence), and one dimension of job satisfaction (work, supervision, pay, and co-workers). A forward stepwise inclusion procedure was used to estimate the respective contribution of each independent variable to the explained variance in absenteeism. The order of entry was determined by the magnitude of the variance explained by the variable. Variables which failed to account for a significant amount of the variance ($< .05$) in absenteeism were not entered into the equation.

By using these twelve multiple regression analyses to estimate the relationship between job satisfaction and absenteeism, the investigator sought to ascertain which of the patterns discussed in the Conceptual Context section

best fit the data. In capsule form, these patterns are as follows:

1. Pattern A - If the pain-reductive hypothesis prevails, then each of the four types of job satisfaction should be significantly correlated in a negative direction with absenteeism under all three levels of work interdependence.

2. Pattern B - If the met expectations hypothesis is supported, only one type of job satisfaction, satisfaction with the work itself, should be significantly and negatively correlated with absenteeism. Moreover, the relationship between satisfaction with work and absenteeism should hold under all three levels of work interdependence.

3. Pattern C - If the level of work interdependence affects the relationship between job satisfaction and absenteeism and the nature of the effect is consistent with the reciprocity hypothesis, two patterns are possible:

Pattern C-1 - Each of the four types of job satisfaction is significantly and negatively correlated with job satisfaction; however, the relationship holds only under a condition of low work interdependence.

Pattern C-2 - Only one measure of job satisfaction, satisfaction with the work itself, is significantly and negatively correlated with absenteeism. As with Pattern C-1, the relationship holds only under a condition of low work interdependence.

4. Pattern D - If the level of work interdependence affects the relationship between job satisfaction and absenteeism and the nature of the effect is consistent with the autonomy hypothesis, two patterns are possible:

Pattern D-1 - Each of the four types of job satisfaction is significantly and negatively correlated with job satisfaction; however, the relationship holds only under a condition of high work interdependence.

Pattern D-2 - Only one measure of job satisfaction, satisfaction with the work itself, is significantly and negatively correlated with absenteeism. As with Pattern D-1, the relationship holds only under a condition of high work interdependence.

Results

The significant relationships between job satisfaction and absenteeism which emerged from the twelve multiple regression analyses are summarized in Table 4.

As is evident from the data reported in Table 4, the analyses do not support the pain reductive hypothesis (Pattern A). All four types of job satisfaction are not significantly correlated with absenteeism under each of the three levels of work interdependence. Since only six of the twelve analyses show the expected relationship, the pain reductive hypothesis is rejected.

With respect to the met expectations hypothesis (Pattern B), the results are quite similar. While two of the three relationships between work satisfaction and absenteeism are significant in the expected direction, two of the three relationships between satisfaction with pay and absenteeism are contrary to expectations. Satisfaction with pay is expected to be unrelated to absenteeism; however, it, like work satisfaction, is negatively related to absenteeism in two of three instances. Consequently, the met expectations hypothesis is not supported.

The reciprocity hypothesis (Pattern C) does not fare any better than its predecessors. Eight of the twelve observed relationships are inconsistent with Pattern C-1 while five of the twelve relationships are contrary to Pattern C-2. For both of these patterns, negative relationships are expected to occur only under a condition of low work interdependence. Since the vast majority of negative correlations appear under the other two levels of work interdependence, the reciprocity hypothesis is rejected.

Unlike the results for the hypotheses underlying the three previous patterns, there is some support for the autonomy hypothesis, specifically for Pattern D-1. As predicted by this hypothesized pattern, all four types of job satisfaction are significantly and negatively correlated with absenteeism under a condition of high interdependence. Only two of the twelve correlations in the satisfaction/work interdependence matrix are inconsistent with Pattern D-1; this result has a probability occurrence of .019, using a one-tailed sign test. Pattern D-2, on the other hand, received much more limited support; five of the twelve correlations between job satisfaction and absenteeism behave contrary to expectations. As the reader may recall, only the measure of work satisfaction under a condition of high work interdependence is expected to be significantly and negatively correlated with absenteeism.

Thus far, the report of results has ignored the effects of the six control variables (sex, age, travel time to work, size of subunit, salary, and notification of impending absence policy) on absenteeism. Two patterns are worth noting. First, only one of these variables, the organization's policy on notification of impending absence, was related to absenteeism in all twelve regression analyses. If the teacher was required to phone his

immediate supervisor of an impending absence, the teacher was much less likely to be absent than if he phoned a faceless bureaucrat. The average amount of variance explained by this single absence control policy, as simple and inexpensive as it is to implement, was two and one-half percent.

Second, the total amount of variance explained by the control variables was considerably higher under a condition of moderate work interdependence than either high or low work interdependence. In a job involving moderate work interdependence, four variables accounted for 15.4% of the total variance (adjusted R square) in absenteeism. These variables were age, salary, size of subunit, and absence notification policy. Age and size of subunit were positively related to absenteeism while salary was negatively related. In the high and low work interdependence settings, the amount of total variance explained by the control variables was approximately four percent.

Discussion

The relationship between job satisfaction and absenteeism among elementary school teachers is tenuous. In none of the twelve multiple regression analyses does the shared variance exceed 7%, suggesting that job satisfaction is not a major factor in absenteeism. This result is consistent with the research which has been conducted in the private sector on blue collar and clerical workers.

Since the relationship between job satisfaction and absenteeism is so weak, it is appropriate to consider several alternative explanations. First, the soundness of the measures might be questioned. This possibility is unlikely, however. The Job Descriptive Index (JDI) is the most thoroughly researched measure of job satisfaction in current use. It possesses

adequate convergent and discriminant validity and has high test-retest reliability. As for the absenteeism measure, it is an objective index of discrete and unequivocally observable behaviors. Previous research on the meaning and measurement of absenteeism attests to the stability and reliability of this measure of short-term absence.[18]

Second, there is the possibility that personal and organizational factors mediated the absence-satisfaction relationships. Such an explanation is not supported by the data. Six known correlates of absenteeism were included in the study as control variables. Inclusion of these variables has a negligible effect on the absence-satisfaction relationships. In two of the twelve regression analyses there is no discernible effect; in seven cases the relationships are attenuated; and in three instances the relationships are amplified. Whenever an effect occurs, it is consistently minimal.

Finally, the lack of a substantial relationship between job satisfaction and absenteeism may be attributed to an overly simplistic conceptualization of the absence-satisfaction relationship. Although the plausibility of this explanation may not be ruled out entirely, the study goes beyond the theoretical formulations of prior work in this area. Several views of the absence-satisfaction relationship were explicated and empirically tested. The perspective most consistent with the data is one that has not been previously articulated in the literature, namely, the relationship between job satisfaction and absenteeism is influenced by the design of the job. In low and moderate interdependent work situations, there is little or no relationship between job satisfaction and teacher absenteeism. However, in relatively high interdependent work settings, the job satisfaction of teachers is negatively related to absenteeism. Despite the fact that all four facets

of job satisfaction are negatively correlated with absenteeism, satisfaction with co-workers and satisfaction with supervision appear to be somewhat more crucial. Each of these two sources of job satisfaction accounts for approximately 7 percent of the variance in absenteeism whereas satisfaction with pay and satisfaction with the work itself explains less than 2 percent. As the study shows, the relationship between job satisfaction and absenteeism is complex, not simple.

Surprisingly, the explanatory power of the control variables also lacks uniformity across the three levels of work interdependence. These variables seem to have a pronounced effect on absenteeism under a condition of moderate work interdependence but only a slight effect in the other two conditions. If this finding is not spurious, it represents a promising direction for future research on organizational behavior. Heretofore, researchers have assumed, perhaps erroneously, that the effect of the characteristics of the person, the immediate work context, and the total organization is independent of the way in which the job is designed. The present study serendipitously casts doubt on the validity of this assumption and, thereby, opens new avenues for research on organizational behavior. Whether these untravelled avenues prove to be an intellectual blind-alley or boulevard is neither a trivial nor a settled matter.

Table 1
Means, Standard Deviations, and Zero-order Correlations for Absenteeism, Satisfaction, and Control Variables under High Work Interdependence.

	X_1	X_2	X_3	X_4	X_5	X_6	X_7	X_8	X_9	X_{10}	MEAN	S.D.
Absenteeism (X_1)											3.82	2.87
Notification (X_2)	-0.2157**										.13	.33
Subunit Size (X_3)	0.0035	-0.4128***									25.60	6.99
Travel Time (X_4)	0.0115	-0.0339	-0.0683								19.49	11.30
Sex (X_5)	0.0617	-0.0458	0.0523	-0.0418							1.14	.34
Age (X_6)	-0.0161	-0.0827	0.1038	-0.1460*	-0.0580						38.29	9.16
Salary (X_7)	0.0650	-0.2782***	0.1137	-0.0498	-0.0019	0.6322***					13,869.71	3,064.04
Work Satisfaction (X_8)	-0.1457*	0.0536	0.0275	-0.1807**	-0.2221**	-0.0009	-0.0608				37.03	6.86
Pay Satisfaction (X_9)	-0.1273*	-0.1046	-0.0140	-0.0379	-0.2346***	0.1584*	0.1384*	0.1366*			32.75	13.42
Supervision Satisfaction (X_{10})	-0.2752***	0.2328***	-0.0996	-0.0441	-0.1322*	0.1478*	0.0579	0.3285***	0.2529***		42.52	10.63
Co-Worker Satisfaction (X_{11})	-0.2792***	0.1785**	-0.0323	-0.1210	-0.0160	0.0590	-0.0060	0.2871***	0.1300*	0.4135***	44.76	10.32

(n = 168)

* $p < .05$

** $p < .01$

*** $p < .001$

Table 2
Means, Standard Deviations, and Zero-Order Correlations for Absenteeism, Satisfaction, and Control Variables under Moderate Work Interdependence.

	X_1	X_2	X_3	X_4	X_5	X_6	X_7	X_8	X_9	X_{10}	MEAN	S.D.
Absenteeism (X_1)											3.61	2.60
Notification (X_2)	-0.1624*										.10	.30
Subunit Size (X_3)	0.2713***	-0.0784									23.21	8.15
Travel Time (X_4)	0.0607	-0.0691	0.0520								19.01	12.40
Sex (X_5)	0.0618	0.0870	0.1360	0.0120							1.13	.33
Age (X_6)	0.0396	0.1661*	0.1442*	-0.1406*	0.0782						36.37	9.55
Salary (X_7)	-0.1507*	0.0021	0.2189**	-0.1881*	-0.0200	0.6259***					14,171.36	2,715.08
Work Satisfaction (X_8)	-0.0442	0.0951	0.0027	-0.0863	-0.2165**	0.1508*	0.0883				38.91	6.80
Pay Satisfaction (X_9)	-0.1867*	0.0968	0.0569	-0.1021	-0.1680*	0.1179	0.1594*	0.1185			24.06	13.03
Supervision Satisfaction (X_{10})	-0.1187	0.0238	-0.1304	-0.1891*	-0.0966	-0.0175	-0.0122	0.2633***	0.1577*		42.63	11.09
Co-Worker Satisfaction (X_{11})	-0.0900	0.0704	-0.0804	-0.0370	-0.0190	0.1242	-0.0351	0.2597***	0.0369	0.2326**	44.28	10.12

(n = 142)

* $p < .05$

** $p < .01$

*** $p < .001$

Table 3
Means, Standard Deviations, and Zero-Order Correlations for Absenteeism, Satisfaction, and Control Variables under Low Work Interdependence.

	X_1	X_2	X_3	X_4	X_5	X_6	X_7	X_8	X_9	X_{10}	MEAN	S.D.
Absenteeism (X_1)											4.16	3.04
Notification (X_2)	-0.1408*										.04	.19
Subunit Size (X_3)	0.0955	-0.1197									23.63	7.61
Travel Time (X_4)	0.1074	-0.0278	0.0122								20.06	11.86
Sex (X_5)	-0.1450*	-0.0144	0.1115	0.0326							1.17	.38
Age (X_6)	-0.1181	0.0623	0.0174	-0.1358*	0.0224						37.22	10.55
Salary (X_7)	-0.1220	-0.0179	0.0553	-0.1695*	0.0161	0.6797***					14,389.51	2,853.99
Work Satisfaction (X_8)	-0.1303*	0.0667	-0.1406*	-0.0916	-0.1111	0.0820	0.0533				37.16	7.32
Pay Satisfaction (X_9)	-0.0782	0.1141	-0.1614*	-0.0458	-0.1653*	0.2101**	0.2366***	0.1895**			22.83	13.25
Supervision Satisfaction (X_{10})	-0.0156	0.1375*	-0.0128	0.0481	-0.0997	0.0952	0.0273	0.2354***	-0.0314		40.52	12.72
Co-Worker Satisfaction (X_{11})	-0.0197	0.0993	-0.0857	-0.0121	-0.2110**	0.1164	0.0981	0.3407***	0.2065**	0.4837***	42.63	10.67

(n = 178)

* $p < .05$

** $p < .01$

*** $p < .001$

Table 4. Relationships between Four Forms of Job Satisfaction and Absenteeism under Different Levels of Work Interdependence.

Form of Job Satisfaction	Level of Work Interdependence: High	Moderate	Low
Work	-[a](1.1.%)[b]		-(.6%)
Pay	-(1.9%)	-(3.7%)	
Supervision	-(6.6%)		
Co-Workers	-(6.7%)		
	(n = 168)	(n = 142)	(n = 178)

a = sign of relationship
b = percent of variance explained

FOOTNOTES

1. J. Robins, "Firms Try Newer Way to Slash Absenteeism as Carrot and Stick Fail," Wall Street Journal, C, 51 (March 14, 1979), 1 and 33.

2. Since no data or estimates exist for the United States, this figure is estimated from the 509 elementary teachers in the present study. The estimate was derived by taking into account the total days absent for each teacher and the length of the school year.

3. This figure is also extrapolated from the current study by (a) multiplying the mean number of days lost per teacher by $35, the cost of a substitute teacher; and (b) multiplying the result of (a) by the total number of elementary and secondary teachers in the United States in 1977-78.

4. This estimate of the annual cost of fringe benefits for days lost is based on the national average teacher salary ($13,297) for 1977-78, a hypothetical percentage of salary going for fringe benefits (11%), a school year of 178.7 days (the national average), the average number of days lost per teacher in this study, and the total number of elementary and secondary school teachers in 1977-78.

5. For recent reviews of research on absenteeism in the private sector, see R. M. Steers and S. R. Rhodes, "Major Influences on Employee Attendance: A Process Model," Journal of Applied Psychology, 63,4 (1978), 391-407, L. W. Porter and R. M. Steers, "Organizational, Work and Personal Factors in Employee Turnover and Absenteeism," Psychological Bulletin, 80 (1973), 151-176, and R. Oliver Gibson, "Toward a Conceptualization of Absence Behavior of Personnel in Organizations," Administrative Science Quarterly, 2,1 (June 1966), 107-133. Since the research on teacher absenteeism is more limited, no critical reviews of this empirical evidence currently exists. See D. W. Spuck, "Reward Structures in the Public High School," Educational Administration Quarterly, 10,1 (Winter 1974): 18-34 and E. M. Bridges and M. T. Hallinan, "Subunit Size, Work System Interdependence and Employee Absenteeism," Educational Administration Quarterly, 14,2 (Spring 1978), 24-42.

6. N. Nicholson, C. A. Brown, and J. K. Chadwick-Jones, "Absence from Work and Job Satisfaction," Journal of Applied Psychology, 1971, 61, 728-737.

7. In the state where this investigation was conducted, all districts are required to grant 10 days' leave of absence for illness. Unused sick leave is carried forward from year to year. The teacher may use up to six days per school year in case of personal necessity.

8. See Porter and Steers, "Organizational, Work, and Personal Factors in Employee Turnover and Absenteeism."

9. Dan C. Lortie, School-Teacher (Chicago: The University of Chicago Press, 1975).

10. J. R. Hackman and E. Lawler, III, "Employee Reactions to Job Characteristics," Journal of Applied Psychology Monograph, 55,3 (June 1971), 259-286.

11. E. Bridges and M. Hallinan, "Subunit Size, Work System Interdependence, and Employee Absenteeism."

12. D. Lortie, School-Teacher.

13. A. W. Gouldner, "The Norm of Reciprocity: A Preliminary Statement" in Current Perspectives in Social Psychology, 3rd ed., ed. E. P. Hollander and R. G. Hunt (New York: Oxford University Press, 1971).

14. J. K. Chadwick-Jones, C. A. Brown, N. Nicholson, and C. Sheppard, "Absence Measures: Their Reliability and Stability in an Industrial Setting," Personnel Psychology, 24 (1971) 463-470.

15. P. C. Smith, L. M. Kendall, and C. L. Hulin, The Measurement of Satisfaction in Work and Retirement (Chicago: Rand McNally, 1969).

16. J. L. Price, Handbook of Organizational Measurement (Lexington, Mass.: Heath, 1972).

17. A description of the Staffing Pattern Inventory and evidence for its reliability and validity in measuring work interdependence is to be found in E. Bridges and M. Hallinan, "Subunit Size, Work System Interdependence, and Employee Absenteeism."

18. J. K. Chadwick-Jones, et al., "Absence Measures."